

2007 Louisiana State University Combined Research and Extension Annual Report

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I. Report Overview

1. Executive Summary

The mission of the LSU Agricultural Center is to enhance the quality of life for the people of Louisiana through research and education programs that develop the best use of natural resources, conserve and protect the environment, enhance the development of existing and new agricultural and related enterprises, develop human and community resources, and fulfill the acts of authorization and mandates of state and legislative bodies.

In realizing this mission, the LSU Agricultural Center in FY 2007 directed research and extension education programs under nine main program areas: 4-H Youth Development; Animal and Animal Production Systems; Community Development; Crops and Crop Production Systems; Environment and Natural Resources; Family Development; Food and Nutrition; Forestry and Forest Products; and Horticulture.

Research Project Summary

Louisiana Agricultural Experiment Station scientists, located on the Louisiana State University and Agricultural and Mechanical College campus and at branch Research Stations located across the state, continue to serve stakeholders by conducting research relevant to Louisiana agriculture. Research results are disseminated to producers, consultants, agribusiness, government agencies, and other stakeholders, both directly and through extension educators.

Extension Program Summary

Education programs of the Louisiana Cooperative Extension Service were conducted in all main programs by Extension faculty located in academic department on the LSU campus in Baton Rouge as well as parish (county) based faculty in each of Louisiana's 64 parishes. Research based information is disseminated to Extension clientele through time honored delivery methods such as group meetings, one-on-one contacts, and ever increasingly through the use of web based technology.

Total Actual Amount of professional FTEs/SYs for this State

Year:2007	Extension		Research	
	1862	1890	1862	1890
Plan	350.0	0.0	161.0	0.0
Actual	360.1	0.0	154.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel

2. Brief Explanation

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals

Brief Explanation

Extension programs are guided by input from overall parish (county) advisory leadership councils as well as subject matter specific advisory groups which meet on an as needed basis.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Needs Assessments
- Use Surveys

Brief Explanation

Stakeholders are identified as those interested in and knowledgeable about LSU AgCenter programs. Input obtained from these individuals and groups through informal means such as individual contacts as well as more formal means such as advisory groups.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public

Brief Explanation

Advisory council meetings were held in all 64 Louisiana parishes (counties) during FY2007.

3. A statement of how the input was considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief Explanation

{NO DATA ENTERED}

Brief Explanation of what you learned from your Stakeholders

Numerous issues were identified during advisory council meetings held in each parish during FY07 some of which, as would be expected were unique to local situations. There were however several issues identified across the state and across program areas including:

- Parenting skills
- Childhood obesity
- Continue and increase research on alternative energy crops
- Lack of positive activities for youth/adult interaction
- Small business development programs and training
- Decline of row crop acreage due to government programs and purchases of land for recreational uses Lack of employment opportunities for young graduates
- Economic impact of changes in production agriculture
- Cost of production in agriculture programs
- Coastal zone land loss and protection

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
4836478	0	5219131	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	3289254	0	2684929	0
Actual Matching	3289254	0	2684929	0
Actual All Other	25379958	0	55694848	0
Total Actual Expended	31958466	0	61064706	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous years				
Carryover	2064673	0	0	0

V. Planned Program Table of Content

S. NO.	PROGRAM NAME
1	Animals and Animal Production Systems
2	Environment and Natural Resources
3	Forestry and Forest Products
4	Horticulture
5	Nutrition and Food
6	Family Development
7	Youth Development
8	Crops and Crop Production Systems
9	Community Development

Program #1**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Animals and Animal Production Systems

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	17%		17%	
302	Nutrient Utilization in Animals	21%		21%	
303	Genetic Improvement of Animals	15%		15%	
307	Animal Management Systems	24%		24%	
311	Animal Diseases	23%		23%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	9.5	0.0	34.8	0.0
Actual	27.2	0.0	28.4	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
296033	0	868420	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
296033	0	868420	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2253030	0	13388739	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

- Appropriate research experiments
- Result demonstrations
- One-on-One consultations as appropriate

2. Brief description of the target audience

Livestock producers, youth and parents engaged in exhibiting livestock, agribusiness company representatives, governmental agencies, and the general consuming public.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	90000	35000	0	0
2007	74926	518160	258960	6304

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted**

Year Target
Plan: 2
 2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	41	41

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	20000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Percentage of producers adopting extension recommended practices

Outcome #1**1. Outcome Measures**

Percentage of producers adopting extension recommended practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	70	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Louisiana's aquaculture, livestock, and poultry producers constantly struggle to reduce input costs and increase productivity. The hot, humid climate creates challenges including heat-stress, high parasite populations, poor reproduction, disease pressures and low dissolved oxygen in water. Assessing animal adaptability and designing effective production management systems to determine the relationships among genetics, physiology, and nutrition is a key concern. Abundant waterways also dictate that animals must be produced in a manner compatible with the environment.

What has been done

Research and extension programs involving most animal science-related disciplines were conducted on various aquaculture, livestock, and poultry species. Areas of emphasis included animal health, genetics, nutrition, and reproductive physiology. Animal-based studies to compare production management systems also were conducted. Information dissemination occurred by multiple means including producer meetings, field days, production manuals, fact sheets, and via the internet. Distance education technology allowed for multi-university collaboration in program delivery.

Results

Crawfish catch efficiency was improved 30-40%, catfish feed costs were decreased 29%, and freshwater drum successfully controlled snails in aquatic ponds. Factors influencing reproduction of crawfish in ponds were identified and technologies to facilitate genetic improvement of aquatic species were refined. Diet modification in catfish, dairy cow, swine, and poultry diets reduced nutrient loss in animal waste with no loss in animal productivity. Vaccine development against bovine brucellosis, bovine respiratory disease, and enteric septicemia of catfish continued. New methods to treat internal parasites in small ruminants and to control external parasites in cattle were developed. Genetic effects on response to stress in poultry, on internal parasite resistance and temperament in beef heifers, and on maternal differences among five breeds of tropically adapted beef cattle were determined. Texas bluegrass tolerance to various grazing pressures was determined and brown mid rib sorghum was shown to be a viable summer baleage crop for dairy cattle. A Beef Nutrition Short Course was delivered to stakeholders in four states via distance education.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
311	Animal Diseases
303	Genetic Improvement of Animals

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

The LSU AgCenter has taken the lead in developing Poultry Production Best Management Practices (BMPs). The LSU AgCenter has developed a Poultry Production BMPs manual, as well as conducted multiple extension educational programs on poultry BMPs for commercial poultry producers over the past few years.

Poultry producers are adopting recommended BMPs. The majority of the poultry survey responders (n = 29 unless otherwise noted) follow extension-recommended best management poultry practices either always or most of the time. Either always or most of the time, 76% of the responders conduct soil tests every 3 years; 75% (n=28) apply nutrients to the soil according to soil test recommendations; 93% apply nutrients by the proper methods; 96% (n=28) apply nutrients at the proper time(s); 62% conduct litter tests before litter is applied to the land; 97% store manure properly; 96.5% use proper mortality management; 86% apply pesticides properly; 90% store pesticides properly; 100% (n= 28) practice pesticide safety; 97% (n=28) follow water well protection procedures; 100% store and dispose of used engine oil, grease, batteries, tires, etc. properly; 79% (n=28) utilize and maintain fuel storage tanks properly; and 69% have a well-organized system of records. Also, 57% of the survey responders utilize composting to dispose of their mortalities and 43% utilize incineration (n=28).

Key Items of Evaluation

Poultry producers are adopting recommended Poultry Production Best Management Practices as recommended by the LsU AgCenter

Program #2**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Environment and Natural Resources

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	30%		30%	
112	Watershed Protection and Management	23%		23%	
133	Pollution Prevention and Mitigation	8%		8%	
135	Aquatic and Terrestrial Wildlife	22%		22%	
403	Waste Disposal, Recycling, and Reuse	7%		7%	
605	Natural Resource and Environmental Economics	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	30.0	0.0	15.9	0.0
Actual	21.1	0.0	20.1	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
230248	0	304399	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
230248	0	304399	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1220211	0	7540728	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

The Center for Natural Resource Economics and Policy (CNREP) coordinates and focuses research and extension efforts of resource economists and policy professionals. The challenge of resource management involves reconciling the dual needs for economic viability and environmental integrity. CNREP is helping Louisiana meet this challenge by engaging in research and extension programs related to energy, coastal and inland wetlands, fisheries, wildlife, land, and water resources that contribute to the management and sustainability of Louisiana's diverse natural resources.

2. Brief description of the target audience

Commercial and recreational fishermen; General public

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	620000	30000	0	0
2007	76943	23895	36894	2955

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 2

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	45	45

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	25000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	65	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The health and well being of Louisiana's citizens depend on its resource-based economy. Louisiana's natural capital assets must be efficiently managed for both current and future generations. Effective resource management implies more than utilization. It also calls for a careful analysis of resource allocation decisions made today and their current and future positive and negative impacts. While research and extension efforts related to natural resource conservation, use, and management have increased in recent years, efforts have been fragmented and widely dispersed.

What has been done

The Center for Natural Resource Economics and Policy (CNREP) coordinates and focuses research and extension efforts of resource economists and policy professionals. The challenge of resource management involves reconciling the dual needs for economic viability and environmental integrity. CNREP is helping Louisiana meet this challenge by engaging in research and extension programs related to energy, coastal and inland wetlands, fisheries, wildlife, land, and water resources that contribute to the management and sustainability of Louisiana's diverse natural resources

Results

Two international conferences targeting socioeconomic aspects of wetland and coastal resource management were held. The knowledge generated and transferred at these conferences has been used by other scientists, extension professionals, and resource managers in professional practice. A new technique for estimating the economic impacts of hurricanes to coastal fishing infrastructure was developed. The new method allows for a more rapid and spatially precise estimate of damages to fisheries infrastructure. During 2007, the results of this assessment provided the basis for more than \$200 million in funding for fisheries recovery in Louisiana. Several applied research projects have been developed to examine the economic aspects of Louisiana's wetland restoration and preservation initiatives. Results indicate that in recent years restoration agencies have begun to abandon economic metrics in favor of more subjective, political criteria for project selection (e.g. project type, location, and sponsor). The net result of this trend has been an increasing loss of program efficiency in the allocation of nearly \$1 billion in project spending since 1991

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Key Items of Evaluation

Program #3**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Forestry and Forest Products

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	45%		45%	
511	New and Improved Non-Food Products and Processes	40%		40%	
604	Marketing and Distribution Practices	15%		15%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	9.0	0.0	11.2	0.0
Actual	6.0	0.0	6.5	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
65785	0	9272	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
65785	0	9272	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
422955	0	2460595	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Spatially-referenced data on forests and soils were collected and the spatial distribution of biosphere and pedosphere carbon was mapped at the watershed scale. Dendrochronology studies were conducted to aid in determining the biological response of wetland forests to hydrological changes. The medicinal qualities of native plants were determined. X-ray scanning of logs combined with virtual sawing technology was employed to improve sawing technology. Continuing education needs were satisfied with workshops on various client-driven topics held throughout the state.

2. Brief description of the target audience

Landowners; Forestry industry; General public

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	25000	25000	0	0
2007	22047	27737	15187	176

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	17	17

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	10000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Percentage of clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Percentage of clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	65	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Forestry faculty worked on problems relevant to carbon storage of forests and the effect of large disturbances. Other research included the hydrological effects in forests, native plants that show medicinal properties, and the biological basis of growth and stand relations, factors affecting long-term productivity, and optimizing the recovery of lumber from logs. Forest products faculty worked to improve production and marketing of lumber and composite wood products and assisted with safety during harvesting. Research included the utilization of virgin and recycled wood fiber for new products.

What has been done

Spatially-referenced data on forests and soils were collected and the spatial distribution of biosphere and pedosphere carbon was mapped at the watershed scale. Dendrochronology studies were conducted to aid in determining the biological response of wetland forests to hydrological changes. The medicinal qualities of native plants were determined. X-ray scanning of logs combined with virtual sawing technology was employed to improve sawing technology. Continuing education needs were satisfied with workshops on various client-driven topics held throughout the state

Results

The carbon assessment on Louisiana's forests has been completed, helping resource managers in developing long-term carbon sequestration strategies. Hurricane Katrina was found to damage 60% of the total forest land in the Lower Pearl River Valley. Beyond assessment of Katrina's damage, this study elucidates the usefulness of remote sensing in the assessment of large-scale risks of hurricanes to coastal forests. Several native species of plants have shown bioactivity. For example, sweetgum fruit is active against human prostate cancer, and Louisiana coastal plants sea rocket and American beauty bush both have anti-tumor activities. Extension activities have also influenced clientele. Many reported that they have adopted new practices after attending our workshops. Two Louisiana-focused forest-sector websites were developed that promote economic development. TOPSAW (training and optimization for sawing logs) is a real-time sawing optimization software developed in the School. We have generated industrial interest in wood plastic composites, leading to a new manufacturing plant in Louisiana

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Key Items of Evaluation

Program #4**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Horticulture

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
202	Plant Genetic Resources	8%		8%	
204	Plant Product Quality and Utility (Preharvest)	10%		10%	
205	Plant Management Systems	41%		41%	
211	Insects, Mites, and Other Arthropods Affecting Plants	13%		13%	
212	Pathogens and Nematodes Affecting Plants	28%		28%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	13.0	0.0	29.1	0.0
Actual	34.0	0.0	20.9	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
328925	0	346584	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
328925	0	346584	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2166181	0	5639476	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Sweet potato and fruit crop efforts continue to address new cultivar development. Louisiana Yards and Neighborhood program was initiated and research to address landscape bed fertilization for herbaceous perennials was completed. Vegetable research addressed sustainable and organic production. Nursery efforts focused on production budgets. Weed control research for landscape beds and home lawns was conducted. Consumers were provided horticulture information via the Get It Growing mass media effort.

2. Brief description of the target audience

Fruit, nut, and vegetable commercial producers; homeowners and home gardeners; nursery growers and related agribusiness clientele.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	100000	75000	0	0
2007	149650	115083	14469	2103

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	17	17

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	25000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Percentage of clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Percentage of clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	70	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Horticulture professionals in Louisiana seek to improve production efficiency, enhance marketing potential, and reduce environmental impact associated with pesticide and fertilizer use. Fruit, nut and vegetable growers desire research on sustainable production and harvest season extension. Nursery and landscape professionals are facing environmental issues. In addition, all producers need assistance in species and cultivar selection, budgeting, weed management, and production practice improvements

What has been done

Sweet potato and fruit crop efforts continue to address new cultivar development. Louisiana Yards and Neighborhood program was initiated and research to address landscape bed fertilization for herbaceous perennials was completed. Vegetable research addressed sustainable and organic production. Nursery efforts focused on production budgets. Weed control research for landscape beds and home lawns was conducted. Consumers were provided horticulture information via the Get It Growing mass media effort.

Results

Three new fig cultivars were released in 2007 to aid growers in market expansion. Sweet potato breeding efforts resulted in the release of Evangeline. This new cultivar will increase consumer consumption and wholesale farm gate value for producers. Nursery production budgets for one gallon and three gallon containers were developed for the Gulf States area. Approximately 80% of fruit and nut growers completely or mostly followed extension recommended production practices. An organic production system was developed for Irish potatoes. Quinclorac was found to be effective for removal of torpedograss from centipedegrass lawns. This will save on renovation and replacement cost. Nutsedge control in landscape beds was successfully accomplished with halosulfuron-methyl application. Ornamental plant recommendations were made via landscape plant evaluation studies. Calcium and silica have been used to demonstrate post harvest longevity increase in floricultural crops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programatic Challenges

Brief Explanation

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

Key Items of Evaluation

Program #5**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Nutrition and Food

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	45%		45%	
502	New and Improved Food Products	21%		21%	
503	Quality Maintenance in Storing and Marketing Food Products	12%		12%	
702	Requirements and Function of Nutrients and Other Food Cor	12%		12%	
712	Protect Food from Contamination by Pathogenic Microorgani	10%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	70.0	0.0	9.6	0.0
Actual	67.3	0.0	8.9	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
460496	0	102755	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
460496	0	102755	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
5976037	0	2436475	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Educational materials were developed to teach nutrition for health, especially to low-income families and youth. These were complemented with Smart Bodies, a comprehensive nutrition and physical activity program developed for children (K-5). The Smart Portions Program helped adults learn healthy lifestyle habits. Research with functional foods investigated the health benefits of resistant starch and other potential food bioactives were extracted and identified. Clinical trials for bioactives were planned.

2. Brief description of the target audience

Limited resource families.

Youth in grades K-5

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	400000	400000	0	0
2007	400430	124407	500713	56092

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	21	21

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	850000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Participants are knowledgeable about and follow healthy weight management practices

Outcome #1**1. Outcome Measures**

Participants are knowledgeable about and follow healthy weight management practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	200	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Improving and ensuring the health of Louisiana's citizens is a high priority. Louisiana currently ranks 4th highest in obesity in the U.S. and the increased risk for diabetes, cardiovascular disease, osteoarthritis, respiratory diseases and some cancers can be directly related to obesity. In 2005, Louisiana ranked 1st in the nation for age-adjusted death rate by diabetes and 6th for age-adjusted death rate by coronary diseases. Louisiana also has one of the highest poverty rates in the nation and an estimated 23% of children in the state live in poor families.

What has been done

Educational materials were developed to teach nutrition for health, especially to low-income families and youth. These were complemented with Smart Bodies, a comprehensive nutrition and physical activity program developed for children (K-5). The Smart Portions Program helped adults learn healthy lifestyle habits. Research with functional foods investigated the health benefits of resistant starch and other potential food bioactives were extracted and identified. Clinical trials for bioactives were planned

Results

Nutrition education increased consumption of vegetables, whole grains and fruits and increased physical activity and decreased consumption of foods high in saturated fats. Smart Bodies was recognized as a National 4-H Youth Development Program of Distinction. Ninety (90) elementary schools statewide participated and 35,642 youth experienced the Body Walk. Evaluations on Smart Portions indicated 80% of the 1300 adults became more physically active; 80% made changes in food choices; 60% doubled daily vegetable consumption; 40% increased whole grain and fruit consumption; and 40% reduced foods high in saturated fat. Recipients of EFNEP programs demonstrated improved resource management and food-related practices. Faculty and paraprofessionals in the food stamp nutrition education program held nutrition programs with ~11,697 low-income adult and 37,315 youth. Resistant food starch reduced food intake in the animal model and the bioavailable glucose (BAG) test was developed as a simple method for assessing glycemic index of foods. Numerous bioactives have been isolated and tested in animal models and some demonstrate health potential.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Competing Programatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #6**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Family Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	43%		43%	
802	Human Development and Family Well-Being	57%		57%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	44.0	0.0	5.0	0.0
Actual	28.1	0.0	0.6	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
296033	0	111628	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
296033	0	111628	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1747531	0	70952	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

1)The Louisiana Childcare Entrepreneurship and Training Program team worked with over 500 child care providers to revive or initiate child care programs. Several sessions of 12 in-depth lessons on child care and entrepreneurship were conducted in coastal parishes.

2) The Family and Child Development provides 18 clock hours of training per session for over 1000 parents including individual/parenting responsibilities, child development, and time and money management in the STEP Program partnership.

2. Brief description of the target audience

Our clients will be the general public including: those with low income, the elderly, youth, and young families, early childhood educators, parent/guardians, farm families, employees, employers, business owners and business groups and the incarcerated. Community leaders targeted include: educators, elected officials, AgCenter faculty, AgCenter partners, gatekeepers, local government, media representatives, policymakers, and master volunteers. Members of the financial community targeted include: bankers, insurance agents, mortgage companies, bankruptcy officials and filers. Regulatory and targeted building clients include: builders, building inspectors, DEQ, DNR, DOE, FEMA, DSS, homebuyers and first-time homebuyers, hurricane evacuees, hurricane impacted homebuyers, permit officers, and realtors

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	190000	0	0	0
2007	92144	42311	15208	2607

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year Target

Plan: 0

2007 : 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	3	3

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Clientele reached

Year	Target	Actual
2007	190000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Parents implement positive parenting practices

Outcome #1**1. Outcome Measures**

Parents implement positive parenting practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	50	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

1)Child Care: There are 12,701 child care businesses (not including home care settings) employing over 22,000 workers and generating \$658 million in gross receipts. Of every dollar spent in child care, \$1.72 is returned into the economy. Hurricanes destroyed many child care businesses creating a loss for the Louisiana economy.

2)Parenting: Over 26% of Louisiana children live in poverty. Over 3000 families apply for public assistance each year due to unemployment.

What has been done

1)The Louisiana Childcare Entrepreneurship and Training Program team worked with over 500 child care providers to revive or initiate child care programs. Several sessions of 12 in-depth lessons on child care and entrepreneurship were conducted in coastal parishes.

2) The Family and Child Development provides 18 clock hours of training per session for over 1000 parents including individual/parenting responsibilities, child development, and time and money management in the STEP Program partnership.

Results

1) The 500 providers trained by the 12 in-depth sessions of LaCRET team have a potential of contributing a total of \$26 million back into the hurricane-ravaged areas. Effective education and training of childcare professionals has been found to correlate directly with higher quality childcare and education. Education in the early years can save millions in intervention in a child's later years. Other potential impact for Louisiana is children who are more school-ready, will make better grades in the future making them more employable.

2) Many of these skills convert from the parenting realm into the workforce. Along with other partners in the STEP program such as the Departments of Social Services and Education and Labor, the Family and Child Development unit have worked to help over 80% of Louisiana families requesting public assistance to gain entry into the workforce. In FY 2006-2007, this saved the state over \$69,000. The potential impact is to move Louisiana families out of 1st place in poverty.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Public Policy changes
- Competing Programatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)

Brief Explanation

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

Key Items of Evaluation

Program #7**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Youth Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	95.0	0.0	0.0	0.0
Actual	99.1	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1118346	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1118346	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
7978540	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Age appropriate educational experiences will be provided to youth.

Appropriate adult education principles will be used to determine educational experiences for volunteers

2. Brief description of the target audience

Primarily youth ages 9-19 as well as youth and adult volunteers.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	115000	125000	700000	400000
2007	200754	70167	1068657	385447

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	2	1	3

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Youth reached

Year	Target	Actual
2007	850000	200000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	Outcome Name
1	Youth to be actively engaged in learning and given the opportunity for mastery Youth to become engaged members of the community Adults and youth gain knowledge and skills associated with personal, organization, & community leadership

Outcome #1**1. Outcome Measures**

Youth to be actively engaged in learning and given the opportunity for mastery
 Youth to become engaged members of the community
 Adults and youth gain knowledge and skills associated with personal, organization, & community leadership

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	500	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Since 2000, Louisiana (LA) has ranked 49 overall on over 100 indicators of child well-being. LA had the highest rates in the nation in drop-out rates and single-parent homes. The % of 8th graders with below basic standardized test scores are: 36%, Basic Math; 19% Science & 19% Reading (rank 49). Civic scores for 8th & 12th graders have not improved from 1998 to 2006. 44% youth had computers in their home (rank 49). LA was 45 in the nation both in teen deaths and teen mothers. 36% of 10-17 year old youth were overweight while 46% don't exercise regularly.

What has been done

Louisiana 4-H focuses on 3 Mission Mandates: Healthy Living, Science, Engineering & Technology (SET), and Citizenship. Smart Bodies (SB) is a comprehensive nutrition, physical activity (PA) program for K-5th grader. 4-H agents in 32 parishes had implemented healthy living school enrichment programs. Over 5000 youth were reached through science-based camping while Youth Wetlands Week activities reached 21,000 youth. Service-learning projects have reached over 36,000 people. Over 6500 volunteers support 4-H programming with over 3000 completing volunteer training.

Results

Smart Bodies (SB) was recognized as a National 4-H Youth Development Program of Distinction. Participation in SB produced a statistically significant increase in nutrition and PA knowledge and self-efficacy regarding fruits, vegetables and PA participation. In SET Programming, Marsh Maneuvers showed significant impact in pre-and post test measures focused on coastal resources, erosion processes and biology of coastal organisms. Test scores improved each week (14%, 21%, 13%, and 30%) with an overall 19.5% increase in scores. With 38 parishes reporting service-learning (S-L) projects, over 775 youth & adults donated more than 5700 hours worth \$106,108.30 & generating \$62,791.61 in support. As a result of S-L, 94% of youth have a better understanding of community problems. In statewide Volunteer training evaluation, 96% of the volunteers broadened their knowledge of new 4-H projects while 93% increased their youth development knowledge. In the Overnight Chaperone Program, 98% gained information on creating positive youth environments and 94% felt more comfortable handling discipline

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Public Policy changes
- Government Regulations
- Competing Programatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)

Brief Explanation

{No Data Entered}

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #8**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Crops and Crop Production Systems

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms	12%		12%	
202	Plant Genetic Resources	7%		7%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Pla	7%		7%	
204	Plant Product Quality and Utility (Preharvest)	10%		10%	
205	Plant Management Systems	14%		14%	
211	Insects, Mites, and Other Arthropods Affecting Plants	14%		14%	
212	Pathogens and Nematodes Affecting Plants	16%		16%	
213	Weeds Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	5%		5%	
601	Economics of Agricultural Production and Farm Management	5%		5%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	60.0	0.0	50.4	0.0
Actual	30.9	0.0	59.6	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
361818	0	880508	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
361818	0	880508	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2417832	0	21878964	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Research and extension programs involving most animal science-related disciplines were conducted on various aquaculture, livestock, and poultry species. Areas of emphasis included animal health, genetics, nutrition, and reproductive physiology. Animal-based studies to compare production management systems also were conducted. Information dissemination occurred by multiple means including producer meetings, field days, production manuals, fact sheets, and via the internet. Distance education technology allowed for multi-university collaboration in program delivery.

2. Brief description of the target audience

Producers of agronomic crops and associated agribusiness and community leaders

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	180000	280000	0	0
2007	111759	167435	3865	40

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year	Target
Plan:	1
2007 :	4

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	47	47

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Clientele reached

Year	Target	Actual
2007	100000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Percentage of producers adopting best management practices

Outcome #1**1. Outcome Measures**

Percentage of producers adopting best management practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	75	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Louisiana with its broad diversity in cropping systems offers challenges in addressing agronomic and economic considerations and environmental stewardship. Breeding programs essential to developing varieties or germplasm with increased yield and quality and pest resistance are necessary for sustained agricultural production. The shift to reduced tillage has affected weed management and insect pests. Diseases are a constraint to crop production and soybean rust has been of major concern.

What has been done

New commercial varieties of rice, sugarcane, oats, wheat and sweet potatoes were released. Several varietal lines of smooth cord grass were chosen as the foundation for the breeding program for coastal wetlands restoration. Research on crop fertilization, tillage and other cultural practices were conducted for major crops at locations across the state. Greenhouse and field plot research was conducted to evaluate optimal weed, insect and disease control methods for major crops in the state.

Results

Newly released varieties of rice, sugarcane, oats, wheat and sweet potatoes will provide growers with additional production options for increasing yield and reducing production costs. Newly released varieties of high fiber sugarcane will provide the foundation for commercial feedstock production in cellulosic ethanol production for Louisiana's developing biofuels industry. Establishment of a coastal plant breeding and genetic improvement program will provide an important step in the research and development of measures to control coastal erosion and promote wetlands restoration. Revised crop fertilization recommendations will allow growers to produce economically optimal yields and maximize returns per acre. Ongoing research and extension recommendations for crop weed, insect and disease control provide growers with treatment options to control targeted pests while minimizing treatment costs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

A survey of representative sample of Louisiana rice producers was completed in the spring of 2007. Producers were asked questions relating to tillage practices, computer use, fertile use, and insecticide use. Producers were categorized as high or low users of Extension based on a self assessment of how often they attended Extension sponsored grower meetings, field day or tours.

Findings:

The majority of producers, both high and low users, planted LSU AgCenter recommended varieties. 92% and 88% of high and low users respectively, utilized some form of reduced tillage in their operations.

88% of high users utilized a computer in their farming operations compared to 56% of low users. 71% of high users and 56% of low users use published economic damage threshold values to determine the timing of applying insecticides.

Key Items of Evaluation

Program #9**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Community Institutions, Health, and Social Services	10%		10%	
805		90%		90%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	4.9	0.0
Actual	11.6	0.0	9.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 131570	1890 Extension 0	Hatch 61363	Evans-Allen 0
1862 Matching 131570	1890 Matching 0	1862 Matching 61363	1890 Matching 0
1862 All Other 1197641	1890 All Other 0	1862 All Other 2278919	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

The LSU AgCenter's Delta Rural Development Center faculty developed four initiatives to address the persistent poverty conditions of residents in rural Louisiana. The Center provides educational programs in entrepreneurship, leadership, agricultural enterprise development and rural tourism. Promoting entrepreneurship in rural areas related to e-business is a high priority for the Center.

2. Brief description of the target audience

Rural Louisiana resident primarily those residing in the 12 parish (county) Delta region of the state located in Northeast Louisiana.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	33000	40000	0	0
2007	52852	8142	11803	2686

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2007 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	28	28

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2007	5000	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O No.	Outcome Name
1	Percentage of clientele who become more civically engaged

Outcome #1**1. Outcome Measures**

Percentage of clientele who become more civically engaged

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2007	15	0

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Rural Louisiana suffers from a lack of healthcare, access to education, access to broadband internet connectivity and overall has been marked by persistent poverty for decades. It is easy to depict rural Louisiana as the declining remnant of an agricultural economy. One out of every four people in rural Louisiana lives below poverty and roughly three quarters of our rural parishes are defined as persistent poverty counties

What has been done

The LSU AgCenter's Delta Rural Development Center faculty developed four initiatives to address the persistent poverty conditions of residents in rural Louisiana. The Center provides educational programs in entrepreneurship, leadership, agricultural enterprise development and rural tourism. Promoting entrepreneurship in rural areas related to e-business is a high priority for the Center.

Results

Nearly 200 employees were trained about workplace ethics and almost 100 employers and employees learned about customer relations. Twelve youth entrepreneurs developed and were trained to start e-businesses in Northeast Louisiana. Leadership training for boards (70 trained) was conducted for organizations, including further development of regional organizations such as Louisiana Delta 65 and the Economic Alliance of North Central Louisiana. Regional development programs, Miss-Lou Rural Tourism Summit, were conducted and grant writing service was provided for the Louisiana Delta 65, Inc. Regional planning workshops were conducted to develop the Louisiana Agri-Culinary Association for the Cajun Region near Crowley, La. The development of renewable energy related businesses were promoted via the LSU AgCenter Agricultural Outlook Conference. Increased access to high education classes was provided for 30 high school students in West Carroll Parish via the Rural Community College Initiative.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families and Communities

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Public Policy changes
- Competing Programmatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)

Brief Explanation

{No Data Entered}

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}